

WHAT IS CLAIMED:

1. A communications terminal apparatus, comprising:
- a communications mechanism configured to perform
- 5 communications with a plurality of communications machines including a sending communications machine and a transfer communications machine;
- a registering mechanism configured to register an address and a communications capability of said transfer
- 10 communications machine;
- a notifying mechanism configured to notify of said communications capability of said transfer communications machine registered in said registering mechanism; and
- a controlling mechanism configured to instruct said
- 15 notifying mechanism to notify said sending communications machine of said communications capability at a beginning of communications and to instruct said communications mechanism to transfer image information received from said sending communications machine to said transfer communications
- 20 machine using said address stored in said registering mechanism.

2. A communications terminal apparatus, comprising:
- a communications mechanism configured to perform
- 25 communications with a plurality of communications machines

including a sending communications machine and a transfer communications machine;

a registering mechanism configured to register an address and a communications capability of said transfer

5 communications machine;

a memory storing a set of image parameters;

a notifying mechanism configured to notify of an enhancement communications capability of said apparatus in accordance with said communications capability of said

10 transfer communications machine; and

a controlling mechanism configured to instruct said notifying mechanism to notify said sending communications machine of said enhancement communications capability at a beginning of communications and to instruct said

15 communications mechanism to transfer image information received from said sending communications machine to said transfer communications machine using said address and said set of image parameters stored in said memory.

20 3. An apparatus as defined in Claim 2, wherein said image information includes color and/or mono-color gray-scale data.

4. An apparatus as defined in Claim 3, further  
25 comprising an enabling mechanism for enabling a color image

receiving function when said address and said communications capability of said transfer communications machine are registered in said registering mechanism.

5           5.     An apparatus as defined in Claim 2, wherein said controlling mechanism is configured to instruct said communications mechanism to communicate with said transfer communications machine to obtain said communications capability of said transfer communications machine when said  
10 communications capability of said transfer communications machine is registered in said registering mechanism.

6.     An apparatus as defined in Claim 2, further comprising another communications mechanism configured to  
15 perform communications with a plurality of communications machines including a sending communications machine and a transfer communications machine,

          wherein said apparatus separately uses said communications mechanisms for receiving and transferring, and  
20           wherein said controlling mechanism changes communications protocols for a transferring operation and accordingly converts said image parameters stored in said memory.

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7. An apparatus as defined in Claim 6, wherein said  
controlling mechanism is configured to start to transfer said  
image information received from said sending communications  
machine to said transfer communications machine before a  
5 completion of receiving said image information from said  
sending communications machine.

8. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to obtain a latest  
10 communications capability through said communications  
mechanism when transferring said image information and to  
update said registration mechanism with said latest  
communications capability.

9. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to obtain a latest  
communications capability through said communications  
mechanism at intervals of a predetermined time period and to  
update said registration mechanism with said latest  
20 communications capability.

10. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to detect at the  
beginning of said communications that said image information  
25 is sent and to conduct a call initiation to said transfer

communications machine when detecting that said image  
information is sent.

11. An apparatus as defined in Claim 7, wherein said  
5 controlling mechanism is configured to detect that said  
transfer communications machine is busy and to then stop  
receiving said image information from said sending  
communications machine.

10 12. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to transfer said image  
information to another registered transfer communications  
machine upon a detection of an event indicating that said  
transfer communications machine is busy.

15 13. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to perform a retry call  
to said transfer communications machine upon a detection of  
an event indicating that said transfer communications machine  
20 is busy.

14. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to perform a retry call  
at intervals of a predetermined time period to said transfer  
25 communications machine upon a detection of an event

indicating that said transfer communications machine is busy.

15. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to transfer said image  
5 information in page units.

16. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to transfer said image  
information using a type of communications same as that used  
10 to receive said image information with said communications  
mechanism.

17. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to transfer said image  
15 information through E-mail to said transfer communications  
machine.

18. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to detect that said  
20 transfer communications machine is incapable of receiving  
said image information and to then stop receiving said image  
information from said sending communications machine.

19. An apparatus as defined in Claim 8, wherein said  
25 controlling mechanism is configured to determine whether said

latest communications capability is sufficient to receive  
said image information and stops receiving said image  
information from said sending communications machine when  
said latest communications capability is determined as not  
5 sufficient to receive said image information.

20. An apparatus as defined in Claim 17, wherein said  
controlling mechanism is configured to add a literal  
identification of said image information to said E-mail.  
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21. An apparatus as defined in Claim 7, wherein said  
controlling mechanism is configured to transfer said image  
information with a predetermined identification code causing  
said transfer communications machine to reproduce an output  
15 of said image information into a predetermined recording  
sheet tray corresponding to said predetermined identification  
code.

22. An apparatus as defined in Claim 7, wherein said  
20 controlling mechanism is configured to determine whether an  
own communications capability can accept said image  
information and to transfer said image information to said  
transfer communications machine when said own communications  
capability of said apparatus cannot accept said image  
25 information.

23. A communications terminal apparatus, comprising:

communicating means for performing communications with  
a plurality of communications machines including a sending  
communications machine and a transfer communications machine;

5 registering means for registering an address and a  
communications capability of said transfer communications  
machine;

notifying means for notifying of said communications  
capability of said transfer communications machine registered

10 in said registering means; and

controlling means for instructing said notifying means  
to notify said sending communications machine of said  
communications capability at a beginning of communications  
and instructing said communications means to transfer image

15 information received from said sending communications machine  
to said transfer communications machine using said address  
stored in said registering means.

24. A communications terminal apparatus, comprising:

20 communicating means for performing communications with  
a plurality of communications machines including a sending  
communications machine and a transfer communications machine;

registering means for registering an address and a  
communications capability of said transfer communications

25 machine;



storing means for storing and a set of image  
parameters;

notifying means for notifying of an enhancement  
communications capability of said apparatus in accordance  
5 with said communications capability of said transfer  
communications machine; and

controlling means for instructing said notifying means  
to notify said sending communications machine of said  
enhancement communications capability at a beginning of  
10 communications and instructing said communications means to  
transfer image information received from said sending  
communications machine to said transfer communications  
machine using said address and said set of image parameters  
stored in said storing means.

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25. An apparatus as defined in Claim 24, wherein said  
image information includes color or mono-color gray-scale  
data.

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26. An apparatus as defined in Claim 25, further  
comprising enabling means for enabling a color image  
receiving function when said address and said communications  
capability of said transfer communications machine are  
registered in said registering means.

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27. An apparatus as defined in Claim 24, wherein said  
controlling means comprises means to instruct said  
communications means to communicate with said transfer  
communications machine to obtain said communications  
5 capability of said transfer communications machine when said  
communications capability of said transfer communications  
machine is registered in said registering means.

28. An apparatus as defined in Claim 24, further  
10 comprising another communications means configured to perform  
communications with a plurality of communications machines  
including a sending communications machine and a transfer  
communications machine,

wherein said apparatus separately uses said  
15 communications means for receiving and transferring, and  
wherein said controlling means changes communications  
protocols for a transferring operation and accordingly  
converts said image parameters stored in said storing means.

20 29. An apparatus as defined in Claim 28, wherein said  
controlling means includes means to start to transfer said  
image information received from said sending communications  
machine to said transfer communications machine before a  
completion of receiving said image information from said  
25 sending communications machine.

30. An apparatus as defined in Claim 29, wherein said  
controlling means includes means to obtain a latest  
communications capability through said communications means  
5 when transferring said image information and to update said  
registration means with said latest communications  
capability.

31. An apparatus as defined in Claim 29, wherein said  
10 controlling means includes means to obtain a latest  
communications capability through said communications means  
at intervals of a predetermined time period and to update  
said registration means with said latest communications  
capability.

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32. An apparatus as defined in Claim 29, wherein said  
controlling means includes means to detect at the beginning  
of said communications that said image information is sent  
and to conduct a call initiation to said transfer  
20 communications machine when detecting that said image  
information is sent.

33. An apparatus as defined in Claim 29, wherein said  
controlling means includes means to detect that said transfer  
25 communications machine is busy and to then stop receiving

said image information from said sending communications machine.

34. An apparatus as defined in Claim 29, wherein said  
5 controlling means includes means to transfer said image information to another registered transfer communications machine upon a detection of an event indicating that said transfer communications machine is busy.

10 35. An apparatus as defined in Claim 29, wherein said controlling means includes means to perform a retry call to said transfer communications machine upon a detection of an event indicating that said transfer communications machine is busy.

15 36. An apparatus as defined in Claim 29, wherein said controlling means includes means to perform a retry call at intervals of a predetermined time period to said transfer communications machine upon a detection of an event  
20 indicating that said transfer communications machine is busy.

37. An apparatus as defined in Claim 29, wherein said controlling means includes means to transfer said image information in page units.

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38. An apparatus as defined in Claim 29, wherein said  
controlling means includes means to transfer said image  
information using a type of communications same as that used  
to receive said image information with said communications  
5 means.

39. An apparatus as defined in Claim 29, wherein said  
controlling means includes means to transfer said image  
information through E-mail to said transfer communications  
10 machine.

40. An apparatus as defined in Claim 29, wherein said  
controlling means includes means to detect that said transfer  
communications machine is incapable of receiving said image  
15 information and to then stop receiving said image information  
from said sending communications machine.

41. An apparatus as defined in Claim 30, wherein said  
controlling means includes means to determine whether said  
20 latest communications capability is sufficient to receive  
said image information and to stop receiving said image  
information from said sending communications machine when  
said latest communications capability is determined as not  
sufficient to receive said image information.

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42. An apparatus as defined in Claim 39, wherein said controlling means includes means to add a literal identification of said image information to said E-mail.

5 43. An apparatus as defined in Claim 29, wherein said controlling means includes means to transfer said image information with a predetermined identification code to cause said transfer communications machine to reproduce an output of said image information into a predetermined recording  
10 sheet tray corresponding to said predetermined identification code.

44. An apparatus as defined in Claim 29, wherein said controlling means includes means to determine whether an own  
15 communications capability can accept said image information and to transfer said image information to said transfer communications machine when said own communications capability of said apparatus cannot accept said image information.

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45. A method of transferring image information, comprising the steps of:

registering an address and a communications capability of a transfer communications machine;

25 notifying a sending communications machine of said

communications capability of said transfer communications  
machine at a beginning of communications;

receiving image information from said sending  
communications machine; and

5 transferring said image information received from said  
sending communications machine to said transfer  
communications machine using said address of said transfer  
communications machine.

10 46. A method of transferring image information,  
comprising the steps of:

registering an address and a communications capability  
of a transfer communications machine;

storing a set of image parameters;

15 notifying of an enhancement communications capability  
in accordance with said communications capability of said  
transfer communications machine at a beginning of  
communications;

receiving image information from a sending  
20 communications machine; and

transferring said image information received from said  
sending communications machine to said transfer  
communications machine using said address and said set of  
image parameters stored in said storing step.

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47. A method as defined in Claim 46, wherein said image information includes color or mono-color gray-scale data.

5 48. A method as defined in Claim 47, further comprising a step of enabling for enabling a color image receiving function when said registering step registers said address and said communications capability of said transfer communications machine.

10 49. A method as defined in Claim 46, further comprising a step of communicating for communicating with said transfer communications machine to obtain said communications capability of said transfer communications machine when said registering step registers said  
15 communications capability of said transfer communications machine.

20 50. A method as defined in Claim 46, wherein said transferring step uses a communications line and communications protocols different from those used for said receiving step with different image parameters converted from said image parameters stored in said storing step.

25 51. A method as defined in Claim 50, wherein said



transferring step starts to transfer said image information before a completion of receiving said image information from said sending communications machine.

5           52.    A method as defined in Claim 51, wherein said transferring step obtains a latest communications capability from said transfer communications machine when transferring said image information and updates said latest communications capability registered in said registering step.

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          53.    A method as defined in Claim 51, wherein said transferring step obtains a latest communications capability from said transfer communications machine at intervals of a predetermined time period and updates said latest  
15   communications capability registered in said registering step.

          54.    A method as defined in Claim 51, further comprising a step of detecting for detecting at the beginning  
20   of said communications that said image information is sent, and wherein said transferring step sends a call initiation to said transfer communications machine when said detecting step detects that said image information is sent.

25           55.    A method as defined in Claim 51, further

comprising a detecting step for detecting that said transfer communications machine is busy, and wherein said receiving step stops receiving when said detecting step detects that said transfer communications machine is busy.

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56. A method as defined in Claim 51, wherein said transferring step transfers said image information to another registered transfer communications machine upon a detection of an event indicating that said transfer communications machine is busy.

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57. A method as defined in Claim 51, wherein said transferring step performs a retry call to said transfer communications machine upon a detection of an event indicating that said transfer communications machine is busy.

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58. A method as defined in Claim 51, wherein said transferring step performs a retry call at intervals of a predetermined time period to said transfer communications machine upon a detection of an event indicating that said transfer communications machine is busy.

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59. A method as defined in Claim 51, wherein said transferring step transfers said image information in page units.

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60. A method as defined in Claim 51, wherein said transferring step transfers said image information using a type of communications same as that used by said receiving step.

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61. A method as defined in Claim 51, wherein said transferring step transfers said image information through E-mail to said transfer communications machine.

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62. A method as defined in Claim 51, further comprising a detecting step for detecting that said transfer communications machine is incapable of receiving said image information, and wherein said receiving step stops receiving when said detecting step detects that said transfer communications machine is incapable of receiving said image information.

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63. A method as defined in Claim 52, further comprising a determining step for determining whether said latest communications capability is sufficient to receive said image information, and wherein said receiving step stops receiving when said determining step determines said latest communications capability is not sufficient to receive said image information.

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64. A method as defined in Claim 61, further comprising an adding step for adding a literal identification of said image information to said E-mail.

5 65. A method as defined in Claim 51, wherein said transferring step transfers said image information with a predetermined identification code to cause said transfer communications machine to reproduce an output of said image information into a predetermined recording sheet tray  
10 corresponding to said predetermined identification code.

66. A method as defined in Claim 51, further comprising a determining step for determining whether an own communications capability can accept said image information,  
15 and wherein said transferring step transfers said image information to said transfer communications machine when said determining step determines that said own communications capability of said apparatus cannot accept said image information.

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67. A method comprising:  
receiving a fax transmission at a receiving fax machine  
checking through an automated process if the fax  
transmission contains color image information; and  
25 if said checking determines that the fax transmission

contains color image information, transferring at  
least the color image information, though an  
automated process, from the receiving fax machine  
to a transfer fax machine that has color printing  
capabilities for printing of said color image  
information.

68. A method as in claim 67 in which said  
transferring is by fax transmission from the receiving fax  
machine to the transfer fax machine.

69. A method as in claim 67 in which said  
transferring is by e-mail transmission.

70. A method as in claim 67 in which said checking  
comprises analyzing an initial portion of the fax  
transmission to see if a subsequent portion of the fax  
transmission contains color image information.

71. A method as in claim 67 in which said  
transferring includes generating contact information  
identifying said transfer fax machine on the basis of  
information stored at said receiving fax machine before said  
fax transmission.

72. A method as in claim 71 in which said generating of contact information includes selecting said transfer fax machine from a plurality of fax machines for which contact information has been stored at the receiving fax machine.

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73. A method as in claim 67 including concurrently receiving said fax transmission at the receiving fax machine and transferring said fax transmission from the receiving to the transfer fax machine.

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74. A method as in claim 67 including storing, at said receiving fax machine, contact information regarding one or more transfer fax machines that have color printing capabilities and updating said contact information from time to time through an automated process.

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75. A method as in claim 74 in which said contact information comprises information regarding color information processing capabilities of said one or more transfer fax machines.

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76. A method as in claim 74 in which said transferring includes selecting through an automated process one of several transfer fax machines for which contact information is stored in the receiving fax machine,

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determining if the so selected transfer fax machine is available and, if it not, selecting another, available transfer machine from among those for which contact information is stored at the receiving fax machine.

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77. A method as in claim 76 in which the stored contact information includes information regarding color information handling capabilities or said one or more transfer fax machines and said selecting includes taking into  
10 account, through automated process, a relationship between said fax transmission and said color information processing capabilities.

78. A method as in claim 67 in which said  
15 transferring includes adding, by the receiving fax machine, a subject line to the transferred fax transmission.

79. A method as in claim 67 in which said  
20 transferring includes adding, by the receiving fax machine, a code to the transferred fax transmission designating a manner of handling prints of the transferred fax transmission at the transfer fax machine.

80. A method as in claim 67 in which said checking  
25 comprises checking if the fax transmission includes color

information on a page-by-page basis and said transferring comprises transferring to the transfer fax machine only pages of said fax transmission that contain color information.

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